CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Decker Coal Company **Project: Application #00182**
OPERATING PERMIT #: 87001C
LOCATION: T8S, R40E Sec. 32, 33, and 34; T9S R40E Sec. 3, 4, 5, 8, 9, and 10
City/Town: Decker
County: Big Horn
PROPERTY OWNERSHIP (surface): [x] Federal [x] State [x] Private

TYPE AND PURPOSE OF ACTION:

Decker Coal Company submitted Application #00182 seeking to increase the currently approved network of water control trenches (ground water dikes) and modify the mining plan, coal recovery, and reclamation schedule at the West Decker Mine.

Highly permeable rock (clinker, alluvium and oxidized coal) in and adjacent to the currently approved cuts in Pit 16 South would likely allow excessive infiltration of water from the Tongue River Reservoir into the mining cuts. This would pose a safety hazard to mine personnel. The Application proposes to eliminate cuts 29S – 44S and emplace an east-west trending water control trench (dike) so that the remaining currently approved cuts in the south part of the pit could be safely mined. The east ends of cuts 22S-28S in Pit 16 South are separated from the Tongue River Reservoir by approximately 1500 feet of scoria and coal. Thus, shortening these seven cuts to allow construction of a north-south trending dike to stem excessive infiltration from the Tongue River Reservoir is also proposed.

The addition of extensive dikes would affect the hydrologic balance in Pit 16 by delaying recovery of water levels and slowing recovery of water quality after mining. The proposed action includes plans for breaching the proposed dikes, as well as older, pre-existing dikes, for given lengths at specific locations in order to hasten restoration of the hydrologic balance after mining. If Application 00182 is approved, a total of 11,527 linear feet of dike would be approved in Pit 16. Of this length, 4,850 feet would be breached.

In addition to the above proposed mine plan changes, approval of this application would allow removal of cuts 48 – 53 along the south end of Pit 11 (F-section) and the addition of cuts 17 – 20 in Pit 16 West. Cuts 48 – 53 in Pit 11 would not be mined because the strip ratio is too high and mining would not be economical.

Proposed changes to the currently approved mine plan would result in the following changes to the coal conservation plan: a reduction of coal mined by 5.435 million tons in Pit 11 and 8 million tons in Pit 16 South, and the addition of 34 thousand tons of D1 coal and 1.56 million tons of D2 coal in Pit 16 West. Net change in disturbance is estimated to be 750 acres less than currently permitted.

Reclamation Plan:

According to permit 87001C and ARM 17.24.501(6), Decker is approved for a variance from backfilling and grading requirements until the end of 2008. A new variance is proposed in the application due to the nearly simultaneous completion of mining throughout the permit area, equipment limitations, and availability of areas to reclaim during the past several years (justified in prior years dating back to 1995). Decker would be obligated to complete backfilling and grading work on a specific schedule as committed to in the application and thereafter in the permit as revised in this application.

N = Not present or No Impact will occur.
Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic	[Y] Soils: This action will not change procedures in the permit for soil testing, verification, salvage, and redistribution. Soils would be tested for suitability parameters of texture, pH, electrical conductivity (EC), sodium adsorption ratio (SAR), saturation percentage. The test results would be submitted to the

IMPACTS ON THE PHYSICAL ENVIRONMENT	
features? Are there special reclamation considerations?	Department for suitability verification and salvage depth concurrence. The soil resource would be salvaged in two lifts. The first lift of soil material ("A" lift), containing A and some B soils, would typically consist of the top six inches of the soil resource. The second lift of soil material ("B" lift), containing B and C soils, would include material down to a non-salvageable barrier or unsuitable zone. The "A" and "B" lift soils would be distributed on regraded spoils where the post-mining topography (PMT) has been met. If there are no regraded spoils available, surplus "A" and "B" lift soil would be stockpiled separately in designated stockpile areas. Each stockpile would be marked with a sign identifying the soil type; additionally, soil stockpiles would be protected from wind and water erosion. Decker Coal would regrade spoils to the approved PMT following mining. The regraded spoils would be tested for suitability parameters (pH, EC, SAR, saturation percentage, texture, and molybdenum concentration) prior to soil laydown. Test results would be submitted to the Department for verification. Once the PMT is achieved and the spoils are determined suitable, the "B" lift soil followed by the "A" lift soil would be redistributed on the approved, regraded topography. The depth of redistributed soil is designated by the target vegetation type as described in section 17.24.313 Reclamation Plan of Decker Coal's Surface Mining Permit (SMP 8700. Following redistribution, an appropriate seed mix would be applied during the next suitable planting period. Any areas where the soil appears unproductive would be evaluated and treatment would be implemented.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[Y] Surface Water: The proposed mine plan revision would result in a reduction in mine pit area (approximately 280 acres) from the currently approved mine plan, and a smaller reduction in surface disturbance (some of the areas to be mined were already disturbed), and a smaller disturbance footprint overall. The proposed mine plan changes of Application 00182 occur within the previously mapped and approved life of mine (LOM) disturbance limit for the West Decker mine. Because the LOM surface disturbance limit is approximately mapped, within and generally parallel to the permit area, to include outlying surface disturbances (e.g. soil stockpiles, access roads), it generally overestimates eventual LOM surface disturbance. Related postmine topography (PMT) changes would primarily adjust for the revised mining plan, with additional surface disturbance at the: • east end of Pit 16 South in the lower Pearson Creek drainage, • west end of Pit 16 West in the Spring Creek/South Fork Spring Creek drainages; and reduced surface disturbance at the: • west end of Pit 11E along the Pond Creek / Pearson Creek drainage divide area. Proposed West Decker PMT would generally approximate the premine landscape. Topographic differences in premine and postmine topography within LOM disturbance areas include changes in drainage basin divides (including ridge areas and upland tributaries), drainage channels and valley bottom topography (including channel, floodplain, terraces and side slope features), and a general loss of slope complexity. Some locally extensive elevation changes would occur along with shifts in premine ridge and valley locations. These changes are often related to spoil material placement (by dragline and truck/shovel operations) during mining, and in some cases are associated with excessive displacement of material near boxcut and final pit areas.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	In addition to the approximate PMT proposed on Decker's maps, Decker's reclamation plan includes commitments to approximate premine slopes, including steeper slopes appropriate for inclusion of dry washes and a variety of other habitat features (e.g. knobs, scarps, snow catchment areas, and rock ledges; e.g. permit Section 17.24.501). Operational drainage control in lower Pearson Creek would also be modified once Pond 26 is intercepted (and replaced) by the proposed Pit 16 South mining (Cuts 24-26) and construction of the Water Control Dike. The proposed Pit 16 South Water Control Dike would be constructed with onsite clay and shale materials to 3434 ft. elevation (100-year flood level of the Tongue River reservoir). The lower portion of the excavated dike/trench near Pearson Creek would provide some additional sediment control. The dike would be keyed into the top of the low transmissivity D1 coal (or to Lift 1 overburden) to limit groundwater inflow to the pit during mining. <u>Ground water</u>: Due to proximity of the Tongue River Reservoir and the extensive, highly conductive clinker and alluvium that lies between the reservoir and the mine pits at the West Decker Mine, pits have periodically experienced excessive water inflow. Inflow into the pits has increased since June 1999, when the Tongue River dam and spillway reconstruction allowed the reservoir to fill to an operational stage of 3428 feet. To limit inflow and facilitate safer working conditions in pits near the reservoir, Decker Coal Company has been approved to place trenches between the pits and the reservoir in Pit 16 which are filled with compacted earthen material to form "dikes". Typically, these dikes are about 180 feet wide and are placed from the base of the most permeable rock to a height above the operational stage of the reservoir. The hydrologic connection between the reservoir and the pits via clinker and coal provides recharge to the reclaimed pits and contributes to the creation of a spoil aquifer in the mined-out pits. Although the dikes are not anticipated to preclude reservoir recharge to the pits, it is anticipated that the dikes will impede the reestablishment of water levels and water quality in spoils water post-mining. In Application 00182, Decker proposes to install additional dikes but would commit to breaching these dikes as well as pre-existing dikes for given lengths at specific locations to facilitate post-mining restoration of the hydrologic balance at West Decker. If Application 00182 is approved, a total of 11,527 linear feet of dike (including new and preexisting dikes) would be approved in Pit 16. Of this length, 4,850 feet would be breached to help restore the hydrologic balance in a timely manner. The additional cuts in Pit 16 West or the removal of cuts in Pit 11, F-Section, are not anticipated to change the hydrologic balance or create significant hydrologic impacts. No impacts to private landowners or change in uses of groundwater outside the permit area are anticipated.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Decker coal obtained an air quality permit in1980. The permit has been updated as required with the most recent Air Quality Permit (1435-04) issued April 16, 2005. Big Horn County is designated as unclassifiable/attainment for the National Ambient Air Quality Standards and Montana Ambient Air Quality Standards. The current permit action would not result in any increase in actual or potential emissions from Decker operations. There would be no additional ambient air quality impacts.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative	[Y] This change in the permit would result in less impact to native vegetative communities, as it results in a net decrease in disturbance of 750 acres

IMPACTS ON THE PHYSICAL ENVIRONMENT	
communities be significantly impacted? Are any rare plants or cover types present?	compared to the current permit. Thus, 750 fewer acres would need to be reclaimed after surface mining. Listed or candidate sensitive species are not present in the general area: Woolly twinpod (*Physaria didymocarpa var.* lanata), Barr's milkvetch (*Astragalus barrii*), and Nuttall desert-parsley (*Lomatium nutallii*), however, none have been reported for the intended disturbance area. No rare vegetative cover types are present in the disturbance area.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] Limited forage and cover value is provided by the vegetative types that occupy the area. Limited use by landbirds, upland game birds, raptors, small mammals, big game and herptile species has been observed within the project area and in similar habitats within the West Decker area. The proposed mining reduces the overall impacts to wildlife by providing less overall disturbance of the area.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[Y] Bald Eagles, a species listed as threatened, are observed yearlong traveling through or foraging within the area. Numerous species of special concern have been identified within the West Decker permit area however the proposed mining reduces overall disturbance. It is anticipated that minimal, if any, impacts to species of special concern would result from the proposed action.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The area of concern was inventoried at the Class II level by Murray (Kiewit) in 1973 and at the Class III level by Fredlund (MRC) in 1975 and 1977. No eligible archeological, cultural or historic sites were identified. No sites requiring further work are in the area. There are no known special paleontological resources in the area.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] Although the Decker Coal Mine is adjacent to the Tongue River Reservoir; populated areas are limited to a few ranches and small tracts with homes outside the permit area. The mine is visible from state highway 314; however, traffic is minimal and Decker Coal actively works to advance reclamation and minimize the surface area under mining.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[Y] See section 10 below.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[Y] The Tongue River Reservoir Recreation Area, livestock production, and coal bed natural gas (CBNG) development are other activities in the vicinity with potential to affect the project. The recreation area and livestock operations are maintained with the current mining. The proposed action would add some additional mining in one area while reducing mining in two other areas; however, all work would occur within the existing permit boundary. No significant impacts to the Tongue River Reservoir Recreation Area are expected. Both the mine and CBNG developers are using the coal resource. The mine would not affect the CBNG project(s) in the area, however, due to discharge of large volumes of water, CBNG poses a significant impact to the mine as recharge to groundwater aquifers, including spoil aquifers, will be significantly slowed. The Montana DEQ Water Protection Bureau has addressed CBNG development in an EA for the Tongue River Project proposed by Fidelity Exploration and Production Company.

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] Heavy equipment, trucks, loaders, and blasting create hazards; however, the operator must comply with all MSHA and OSHA regulations. The operator currently utilizes proper precautions to enhance safety and would continue in the best interest of its employees. The proposed change in mine plan would not affect human health above existing conditions.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[Y] The proposed reduction of marketable coal reserves would reduce the amount of coal tax revenues.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] Traffic would not increase and demands on local and state services are projected to remain the same.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] There are multi-resource BLM management plans for the area. Lease agreements between Decker Coal and the BLM for mining of the coal in this area remain current under lease numbers 061685 and 057934-A.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] There are no wilderness areas near or within the project area. The Tongue River Reservoir and state park are adjacent to the mine area; however, no significant impact is expected from the projected activity. Appendix 312-1 of the Decker Coal Company permit document includes studies of the Tongue River Reservoir. The studies cover vertebrate and invertebrate species along with water quality related to coalmine effluent. The studies indicate that there would be no significant impacts to the reservoir as a result of mining. The proposed action would not change this finding.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The project would not significantly affect any populated area. Neither population increase nor residential decrease would be incurred by approving the project.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] Historic cultural references are fully covered under Item 7, Historic and Archeological Sites. There are no known native or traditional lifestyle issues in the area. While there are known to be species of plants with traditional Native American utilization, none of them are unique occurrences.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute	[N]

IMPACTS ON THE HUMAN POPULATION	
adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated persons private property? If not, no further analysis is required.	[N] Y] The lands within the proposed major revision are owned by Decker Coal Company or the US Government (BLM). The mineral reserves are owned by US Government (BLM) and leased by Decker Coal Company. The proposed changes to the mine plan would allow additional development of some coal reserves, while reducing the development of economically marginal reserves. Surface uses would be limited during a period of time when mining is proceeding. Proposed state government activities would place some restrictions on the owner's use of the surface property, but not sufficient enough to constitute a taking because the owner is not deprived of property or all economic uses of that property.
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[N/A] The Department has a level of discretion in its permitting decision.
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:

No Action: Under the "No Action" alternative, the Department would deny approval for deletion of the mine passes in Pit 16 South and F-Section and addition of mine passes in Pit 16 West. No additional water control dikes would be built. This alternative would not change the amount of coal mined or disturbance created as currently approved in the mine permit. It is highly likely that potentially dangerous conditions due to water inflow from the Tongue Reservoir into Pit 16 South would make mining untenable. There would be no approved plan for breaching pre-existing dikes. A reclamation schedule would need to be agreed upon through the minor revision process.

Approval: Deletion and addition of cuts to the mine plan would result in mining 8 million tons less coal than currently permitted in Pit 16 South, 5.435 million less tons recovered in Pit 11 – F-Section, and mining an additional 34 thousand tons of D1 coal and 1.56 million tons of D2 coal in Pit 16 West. Net change in disturbance is estimated to be 750 acres less than currently permitted. Dikes would be emplaced in Pit 16 South to control water inflow from the reservoir and thereby facilitate safe mining. Locations and lengths for breaching the dikes would be specified in the permit.

Approval with modification: No approvals with modification are proposed.

26. Public Involvement: Public Notice of the Major Revision application was published in the Big Horn County News of Hardin, Montana by Decker Coal Company on December 20 and 27, 2007 and January 3 and 10, 2008, the four weeks required under ARM 17.24.401(3). Notice of availability of this Environmental Assessment will be published

in the Sheridan County Press beginning January 22, 2009, for two consecutive weeks.

27. Other Governmental Agencies with Jurisdiction: The U.S. Bureau of Land Management, which addressed the changes to coal conservation in a letters of February 6 and April 30, 2007, stating it approved the revision to the Resource Recovery and Protection Plan. Mining development has also been addressed through the BLM planning process.

28. Magnitude and Significance of Potential Impacts: Impacts of the entire operation were analyzed in the June 13, 1977 EIS. A draft supplement to the Final EIS was made available January 13, 1982 for Pit 16 North extensions to the West Decker Mine area. There would be no significant impacts associated with this change in mine plan.

29. Cumulative Effects: No other new activities have been identified in the area.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

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